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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/473,740	12/28/1999	HONGJIANG SONG	INTL-0327-US	1399

7590 11/06/2003

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EXAMINER

VO, DON NGUYEN

ART UNIT	PAPER NUMBER
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2631

13

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/473,740

Applicant(s)

SONG, HONGJIANG

Examiner

DON N VO

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Acknowledgment***

1. In view of the Appeal Brief filed on 6/24/2003, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (fig. 1) of instant application in view of Lang (5,956,377; newly cited art).

As shown in figure 1, the admitted prior art teaches a repeater circuit comprising a data recovery circuit (16) and synchronization detection circuit (18). See also page 1, line 1 to page 2, line 10 of the instant application. The admitted prior art fails to teach detecting whether some of the bits indicate a synchronization field during the buffering the bits. However, Lang teaches, as shown in figure 3 and abstract, detecting whether some of the incoming bits indicate a synchronization field during the buffering the incoming bits in order to minimize the delay in processing the signal. See also column 2, lines 31-51. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the repeater circuit of the admitted prior art by employing the teaching of Lang so that to improve the delay time of repeating the data since both buffering bits and detecting synchronization field are performed concurrently.

3. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (fig. 1) of instant application in view of Lang (5,956,377) as applied to claims 1-8 and 15-20 above, and further in view of Banker et al (5,497,187; art of record), Andersson et al (5,671,249; art of record) or Julyan (5,790,610; art of record).

Both the admitted prior art and Lang teach all subject matter claimed except for using the output of the data recovery circuit to apply to the transmitter to form an outgoing data. However, Banker (fig. 4C), Andersson (figs. 3 and 4) or Julyan (figs. 1, 2 and 7) teaches using the output of the data recovery circuit to

apply to the transmitter to form an outgoing data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the repeater of the admitted prior art by employing the teachings of Banker, Andersson or Julyan so that the delay for processing the signal received from the receiving end to the transmitting end of the repeater can be reduced.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DON N VO whose telephone number is (703) 305-4885. The examiner can normally be reached on 8:30AM-5:00PM, Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOHAMMAD GHAYOUR can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.



DON N VO  
Primary Examiner  
Art Unit 2631